ATTACHMENT 1

Interim Measures
Scope of Work

I. Purpose

The purpose of the Interim Measures (IMs) described in this Scope of Work (SOW) is to control or abate potential threats to human health and the environment and/or to prevent or minimize the release or potential release of hazardous wastes or hazardous constituents at or from the Facility prior to completion of the RCRA Facility Investigation (RFI) and the Corrective Measures Study (CMS) required by the Consent Decree. AK Steel shall implement the Interim Measures described herein in accordance with the requirements of the Consent Decree, this SOW, the approved Interim Measures Workplan(s), and any other plans approved by EPA pursuant to this SOW. AK Steel shall furnish all personnel, materials and services necessary for, or incidental to, performing the IMs.

II. Scope

AK Steel shall implement all Interim Measures described in this SOW in accordance with the Interim Measures Workplan(s) required in Section III, Part 1, below; the Health and Safety Plan required in Section III, Part 2, below; the Interim Measures Design Program required in Section III, Part 3, below; the Interim Measures reporting requirements set forth in Section III, Part 4, below; and the Schedule set forth in Section III, Part 5, below.

The Interim Measures to be implemented by AK Steel pursuant to this SOW shall include the following:

1. Dicks Creek floodplain soil sampling and analysis. AK Steel shall collect and analyze soil samples from the Dicks Creek floodplain in accordance with the Floodplain Soil Sampling and Analysis Plan approved with conditions by EPA on March 21, 2005.

2. Excavation and proper disposal of any Dicks Creek floodplain soils containing more than 5 mg/kg of polychlorinated biphenyls (PCBs), as demonstrated during implementation of the approved Floodplain Soil Sampling and Analysis Plan, approved with conditions by EPA on March 21, 2005. Excavation of floodplain soil may require pre-construction notification of the United States Army Corps of Engineers ("USACE") and, as appropriate, a permit under section 404 of the CWA, and certification from OEPA pursuant to section 401 of the CWA. AK Steel shall submit to OEPA a Notice of Intent for coverage under the General Construction Activity Storm Water Permit.

3. Delineation, containment and recovery of free product in the vicinity of Monitoring Well MDA-33S. AK Steel will conduct a supplemental investigation in accordance with the provisions of the approved Uplands Sources Sampling and Analysis Plan (soil borings and temporary wells, groundwater monitoring and analysis) to delineate the nature and extent of free product in and around MDA-33S. AK Steel will contain and recover free product in the vicinity of monitoring well MDA-33S near Monroe Ditch by constructing a sheet pile barrier to prevent the migration of free product into Monroe Ditch, installing recovery wells at each end of the sheet pile containment barrier, periodically checking the wells for free product in accordance with the approved Operation and Maintenance (O&M) Plan, and removing any free product in the manner described in the approved O&M Plan. The sheet piling used to construct the containment barrier will be anchored into the underlying clay unit (the clay unit noted on the MDA-33S boring log to be at a depth of approximately 11 feet) with care to prevent breaching of the clay. The soil borings and temporary wells and sentinel/recovery wells shall be

installed/screened such that the bottom of the boring/well screen interval penetrates into the underlying till. Operation and maintenance of the installed system shall be described in an O&M Plan to be submitted for review and approval in accordance with Section IX of the Consent Decree. The O&M Plan shall include provisions indicating how frequently AK Steel will check to determine if free product is present in the recovery wells and describing how AK Steel will remove such free product.

IM 3 will be completed as part of the upland source control effort prior to the implementation of IMs 6, 7, and 8.

4. Delineation, excavation and proper disposal of contaminated soils containing more than 5 mg/kg PCBs in the areas described in 4.A - 4.C, below, and, in the case of the area described in 4.C, containing oils, and restoration of the excavated area with clean fill and native vegetation or clean fill and gravel, as applicable.

A. Soils in the vicinity of AK Steel Soil Sample SS-01 in the slag processing area.

B. Soils in the vicinity of EPA floodplain soil sample S23 located west of Yankee Road on the north side of Dicks Creek.

C. Soils in the vicinity of EPA floodplain soil samples S25/S28 located near Orman's Welding on the south side of Dicks Creek.

AK Steel shall delineate any contamination in the area described in 4.A in accordance with the provisions of the approved Upland Sources Sampling and Analysis Plan. AK Steel shall delineate any contamination in the areas described in 4.B & 4.C concurrently with IM 1, and in accordance with the provisions of the Floodplain Soil Sampling and Analysis Plan, approved with conditions by EPA on March 21, 2005.

Excavation of floodplain soil in the areas described in 4.B and 4.C may require pre-construction notification of the United States Army Corps of Engineers ("USACE") and, as appropriate, a permit under Section 404 of the CWA.

IM 4 will be completed as part of the upland source control effort prior to the implementation of IMs 6, 7, and 8.

5. Delineation, excavation and proper disposal of contaminated soils containing more than 25 mg/kg PCBs in the vicinity of AK Steel soil boring BH-08, and restoration of the excavated area with clean fill and native vegetation or clean fill and gravel, as applicable. AK Steel will collect and analyze soil samples in the vicinity of AK Steel boring BH-08 in accordance with the approved Upland Sources Sampling and Analysis Plan.

IM 5 will be completed as part of the upland source control effort prior to the implementation of IMs 6, 7, and 8.

6. Delineation, excavation and proper disposal of sediment and other material from Monroe Ditch, the Outfall 002 Channel and Reach 1 of Dicks Creek. AK Steel shall delineate the lateral and vertical extent of sediment present in the portion of Monroe Ditch on AK Steel's property, in the Outfall 002 Channel and in Reach 1 of Dicks Creek through a combination of depth probing and coring, in accordance with the approved Sediment Delineation Plan. AK Steel shall probe

sediment depth at sufficient intervals to adequately delineate the horizontal and vertical extent of sediment depositional areas. AK Steel shall also collect at least 8 cores in Monroe Ditch and at least 25 cores in Reach 1 of Dicks Creek. Each of these cores shall be advanced to the point of refusal or at least eight (8) feet below the upper surface of the sediments. Nothing in this Paragraph shall be construed to require AK Steel to advance cores into or through bedrock or other rock strata.

In accordance with the approved Sediment Delineation Plan, some cores will be collected initially to verify sediment depth information collected from the depth probings. In addition, samples of the clay or other native material underlying the sediments will be collected from at least 25 cores and analyzed for PCBs in accordance with the approved Sediment Delineation Plan. AK Steel shall delineate the lateral and vertical extent of any areas in Reach 1, the Outfall 002 Channel and Monroe Ditch where PCB concentrations in such clay or other native material underlying the sediment exceed the applicable cleanup standards (i.e., where (1) the spatially-weighted average concentration of PCBs in the clay or other native material exceeds 1.5 mg/kg total PCBs dry weight, or (2) any individual sample of clay or other native material underlying the sediment exceeds 3.0 mg/kg total PCBs dry weight). AK Steel shall create plan view maps as well as cross-sections in order to clearly delineate the cut lines that will be used to excavate sediment and any underlying clay or other native material required to be removed from these areas. Also, access agreements will be required from property owners and approval of the Final Design Documents will be required from state and local transport authorities, appropriate railroad companies and utilities, as necessary.

AK Steel shall excavate and properly dispose of all sediment, as well as any underlying clay or other native material that exceeds the aforementioned cleanup standards in Monroe Ditch, the Outfall 002 Channel and Reach 1, as specified in the approved Final Sediment Remediation Design Document. In each of these areas, excavation work shall proceed from upstream to downstream.

AK Steel shall submit to OEPA applications for an NPDES permit and a Permit to Install ("PTI") for any dredge de-watering treatment and discharge system. This project will require a 401 Water Quality Certification issued from the State of Ohio, even if the USACE determines the activity can proceed under a nationwide permit. The application for the 401 Water Quality Certification shall occur at the same time as all other NPDES and PTI applications required by the Division of Surface Water, Ohio EPA, so that one antidegredation public hearing for all applications can be scheduled for the same date.

7. Delineation, excavation and proper disposal of sediment and other material from Reach 2 of Dicks Creek. AK Steel shall delineate the lateral and vertical extent of sediment to be removed from Reach 2 of Dicks Creek through a combination of probing and coring, as provided in the approved Sediment Delineation Plan. AK Steel shall probe sediment depth at sufficient intervals to adequately delineate the horizontal and vertical extent of sediment depositional areas in Reach 2. AK Steel shall also collect at least 30 cores in Reach 2 of Dicks Creek. Each of these cores shall be advanced to the point of refusal or at least eight (8) feet below the upper surface of the sediments. Nothing in this Paragraph shall be construed to require AK Steel to advance cores into or through bedrock or other rock strata.

In accordance with the approved Sediment Delineation Plan, some cores will be collected initially to verify sediment depth information collected from the depth probings. In addition, samples of sediments or clay or other native material underlying the sediments will be collected

from the cores and analyzed for PCBs as specified in this Paragraph and the approved Sediment Delineation Plan.

A. In any portions of Reach 2 where the bottom of sediment is identified from probing and/or coring in accordance with the approved Sediment Delineation Plan, AK Steel shall excavate and properly dispose of all sediment, as well as any underlying clay or other native material that exceeds the applicable cleanup standard (i.e., where (1) the spatially-weighted average concentration of PCBs in such clay or other native material exceeds 1.5 mg/kg total PCBs dry weight, or (2) any individual sample of such clay or other native consolidated material exceeds 3.0 mg/kg total PCBs dry weight), in accordance with the approved Final Sediment Remediation Design Document.

From each core collected in portions of Reach 2 where the bottom of sediment is identified through coring in accordance with the approved Sediment Delineation Plan, AK Steel shall collect samples of any clay or other native material underlying Reach 2 sediment deposits and analyze the samples for PCBs. In such portions of Reach 2, AK Steel shall delineate the lateral and vertical extent of any areas where the clay or other native material underlying the sediment exceeds the aforementioned cleanup standard, consistent with the approved Sediment Delineation Plan, and in accordance with the approved Final Sediment Remediation Design Document.

B. In any portions of Reach 2 where the bottom of sediment is not identified from coring in accordance with the approved Sediment Delineation Plan, AK Steel shall excavate and properly dispose of the top two feet of sediment, as well as any additional underlying material that exceeds the applicable cleanup standard (i.e., where (1) the average concentration of PCBs exceeds 1.5 mg/kg total PCBs dry weight, or (2) any individual sample exceeds 3.0 mg/kg total PCBs dry weight).

From each core that recovers more than two feet of sediment in portions of Reach 2 where the bottom of sediment is not identified through coring in accordance with the approved Sediment Delineation Plan, AK Steel shall collect sample(s) of sediment beneath the top two feet of sediment and analyze such sample(s) for PCBs. In such portions of Reach 2, AK Steel shall delineate the lateral and vertical extent of any areas where PCB concentrations exceed the aforementioned cleanup standard in sediments beneath the top two feet of sediment.

C. AK Steel shall create plan view maps as well as cross-sections that clearly delineate cut lines that will be used to excavate all sediment and underlying clay or other native material required to be removed from Reach 2. The total number of cores collected by AK Steel in Reach 2 shall be sufficient to verify statistically that the cut lines will achieve the applicable cleanup standards Excavation work in Reach 2 shall proceed from upstream to downstream.

AK Steel shall submit to OEPA applications for a NPDES permit and a PTI for any dredge de-watering treatment and discharge system. This IM will require a 401 Water Quality Certification issued from the State of Ohio, even if USACE determines the activity can proceed under a nationwide permit. The application for the 401 Water Quality Certification shall occur at the same time as all other NPDES and PTI applications required by the OEPA Division of Surface Water, so that one antidegredation public hearing for all applications can be scheduled for the same date. Also, access agreements will be required from property owners and approval of the Final Design Documents will be required from state and local transport authorities, appropriate railroad companies and utilities, as necessary.

8. Restoration of the Outfall 002 channel, Reach 1 of Dicks Creek and Monroe Ditch after remediation. Upon completion of (or concurrent with) IM 6 , AK Steel shall install rip-rap in the Outfall 002 channel (to restore it to pre-existing grade), and restore Reach 1 of Dicks Creek with clean sand, gravel and cobble, as appropriate, to minimize channel incision and restore biological productivity to the maximum extent practical. For Reach 1 of Dicks Creek, at least 1 foot of clean material will be placed in areas where 1 or more feet of sediments have been removed. Design of restoration of Reach 1 of Dicks Creek shall include measures to minimize down-cutting or under-cutting of the streams upstream and downstream from the areas undergoing remediation.

With regard to Monroe Ditch, from the railroad culvert to the existing concrete liner, upon completion of (or concurrent with) IM 6, AK Steel shall design and implement restoration of this stream in order to limit movement of contaminants from the adjacent areas, minimize channel incision, restore biological productivity to the maximum extent practical and limit further impairment of the stream. At a minimum, AK Steel shall consider the following issues when designing and implementing the restoration: (1) the need for an impervious synthetic liner in Monroe Ditch from the railroad culvert to the existing concrete liner, including, but not limited to, the usage of an underdrain system in the stream with treatment for the collected water, in-bed containment walls, and layers of liner and (2) restoration of the stream's biological habitat, including stream substrate restoration through placement of clean sand, gravel and cobble, prevention of channel incision, measures to minimize down-cutting or under-cutting of the stream upstream and downstream of the area undergoing remediation, establishment of a floodplain/floodway and other riparian restoration measures.

The origin of the clean material used for the Outfall 002 channel, Reach 1 of Dicks Creek and Monroe Ditch will be specified within the approved Final Sediment Remediation Design Document. This IM will require a 401 Water Quality Certification issued from the State of Ohio, even if USACE determines the activity can proceed under a nationwide permit. As stated above, the application for the 401 Water Quality Certification shall occur at the same time as all other NPDES and PTI applications required by the OEPA Division of Surface Water, so that one antidegredation public hearing for all applications can be scheduled for the same date. Also, access agreements will be required from property owners and approval of the Final Design Documents will be required from state and local transport authorities, appropriate railroad companies and utilities, as necessary.

9. Continued operation of existing groundwater interceptor trench to prevent PCB-containing seeps from entering Monroe Ditch. An O&M Plan will be developed and submitted for review and approval in accordance with Section IX of the Consent Decree to ensure proper operation and maintenance of the existing interceptor trench, consistent with current procedures. The O&M Plan shall provide that: samples of the influent and effluent to the treatment system will be collected and analyzed on a weekly basis, as currently performed; samples of Monroe Ditch and Dicks Creek water samples will be collected and analyzed on a monthly basis, as currently performed; and operation and maintenance reports will be submitted to OEPA on a quarterly basis. AK Steel shall operate the existing interceptor trench in accordance with the approved O&M Plan until no PCBs are detected in the influent to the interceptor trench treatment system for a period of at least 18 consecutive months.

10. Groundwater seep inspection and control. AK Steel shall inspect the banks of Dicks Creek adjacent to AK Steel property and the banks of Monroe Ditch for groundwater seeps every

2 weeks, weather conditions permitting, and document the results of those inspections in its records. If weather conditions do not permit a scheduled inspection, the missed inspection will be undertaken the following week, weather conditions permitting, and subsequent inspections every two weeks thereafter, weather conditions permitting. If any new seep is detected, the new seep shall be sampled. All such samples shall be analyzed for PCBs, and if the seep is located outside the area covered by the phyto-remediation barrier described in IM 12, for pH. In any case where PCBs are detected in a seep, AK Steel shall also collect a sample of sediment or soil potentially impacted by such seep and analyze such sample for PCBs. If any sample required pursuant to this Paragraph contains PCBs, or if any such sample outside of the area covered by the phyto-remediation barrier described in IM 12 exhibits a pH greater than 9.0, then within 30 days after receiving results of analysis of all samples required pursuant to this Paragraph relating to a particular seep, AK Steel shall submit for approval in accordance with Section IX of the Consent Decree an Interim Measures Workplan providing for control of discharges from the seep, or a report evaluating whether the seep satisfies the criteria for implementation of Stabilization activities under Paragraph 22 of the Consent Decree.

AK Steel shall implement the groundwater seep inspections until no high pH (i.e. pH > 9) or PCBs are detected in any new seeps for a period of 18 months.

AK Steel shall address the requirements for the seep inspection and sampling pursuant to this IM in the O&M Plan required under IM 9.

11. Signs and fencing. Until completion of IM 2 through 8, above, AK Steel shall inspect and repair existing signs and fencing, as delineated in Exhibit A, on a monthly basis and document the results of these efforts in its records. AK Steel can remove the signs at the completion of IM 2-8. AK Steel shall ensure that gates on AK Steel property remain locked to restrict access to Dicks Creek. AK Steel shall address the requirements for this IM in the O&M Plan required under IM 9.

12. Control of groundwater seeps to Dicks Creek along the south bank. AK Steel will control groundwater seeps emanating from the south bank of Dicks Creek by evaluating and installing a phyto-remediation barrier over a 3,000 foot long area. The Interim Measures Workplan required pursuant to this SOW shall include (but not be limited to) the following information regarding the phyto-remediation barrier: number and species of plants to be used and how they will be planted; flow rates of ground water through the phyto-barrier; expected ranges of pH in the ground water; climate data for the site; some explanation of control effectiveness during plant dormancy period; time frame for implementation; and proposed O&M plan. AK Steel shall submit to OEPA an application for a PTI for the phyto-remediation barrier. Work under this IM may require pre-construction notification of the USACE and, as appropriate, a permit under Section 404 of the CWA, and certification from OEPA pursuant to Section 401 of the CWA.

III. Interim Measures Components

Components of the Interim Measures, which are discussed in more detail below, include the following:

Part 1: Interim Measures Workplans

A. Interim Measures Objectives and Scope

B. Waste Characterization and Management

C. Public Involvement

D. Quality Assurance

E. Data Management and Reporting

Part 2: Health and Safety Plan

Part 3: Interim Measures Design Program

A. Design Plans and Specifications

B. Operations and Maintenance Plan

C. Project Schedule

D. IM Construction Quality Assurance Objectives

Part 4: Reports and Submittals

A. Progress Reports

B. Interim Measures Workplans

C. Final Design Documents

D. Interim Measures Report

Part 5: Schedule

Part 1: Interim Measures Workplans

Except as provided below in this paragraph, AK Steel shall prepare and submit for review and approval in accordance with Section IX of the Consent Decree Interim Measures Workplans to implement each of the Interim Measures described in Section II of this SOW, as well as an amended or supplemental Workplan(s) for any subsequent Stabilization required by EPA under paragraph 22 of the Consent Decree or additional Interim Measure proposed by AK Steel. AK Steel may elect to include more than one Interim Measure in a single workplan. In lieu of submitting Interim Measures Workplans for IMs 9, 11, and the groundwater seep inspection and sampling activities required under IM 10, AK Steel shall prepare and submit for review and approval in accordance with Section IX of the Consent Decree and in accordance with the schedule set forth in Part 5 of this SOW, an O&M Plan providing for implementation of such requirements. The Workplan(s) shall include the Floodplain Soil Sampling and Analysis Plan, the Sediment Delineation Plan, and the Upland Sources Sampling and Analysis Plan. The Workplan(s) for IMs 2, 3, 4, 5, 6, 7, 8 and 12 shall include each of the components described in Part 1.A - 1.E below.

A. Interim Measures Objectives and Scope

The IM Workplan(s) shall specify in detail the objectives and scope of each IM, demonstrate how the IM will abate releases and threatened releases, and to the extent possible, be consistent and integrated with any long-term solution at the facility. The IM Workplan(s) will, as applicable, include a detailed discussion of the technical approach for each IM, including any sampling and analysis to be performed, a basis for the engineering design, engineering plans, schedules with implementation milestones for completion of each IM, and a description of key personnel responsible for directing the Interim Measures. Within 60 days after approval of each IM Workplan, a statement describing qualifications of key personnel performing the Interim Measures, including, as appropriate, contractor personnel, will be submitted for approval in accordance with Section IX of the Consent Decree. The IM Workplan(s) shall also document the overall management approach to the Interim Measures; include a Quality Assurance Project Plan (QAPP) and specify how data management and reporting will be accomplished for the IM.

B. Waste Characterization and Management

The IM Workplan shall provide a detailed description of how AK Steel will characterize, manage and dispose of any contaminated soils, sediments, wastewater and other wastes generated as a result of implementation of the Interim Measures.

C. Public Involvement

As part of the IM Workplan(s), AK Steel shall provide for public involvement in activities relating to the Interim Measures. AK Steel must never appear to represent or speak for EPA, OEPA, or Intervenors before the public, other government officials, or the media.

Public Involvement activities may include the following:

1. Conducting an open house and informal meeting(s) (i.e., availability session(s)), as appropriate, in a public location where people can talk to Agency officials and AK Steel on a one-to-one basis;

2. Preparing fact sheets summarizing current or proposed Interim Measure activities (all fact sheets shall be submitted to EPA, OEPA, and Intervenors for review prior to public distribution);

3. Maintaining an easily accessible repository (such as a municipal building or public library) of information on the facility-specific Interim Measure program, including the Consent Decree, approved workplans, and/or other reports.

A plan and proposed schedule for community relations activities shall be included in the public involvement component of the IM workplan(s), except for the approved Floodplain Soil Sampling and Analysis Plan, and the approved Sediment Delineation Plan. This schedule may be revised as appropriate, with EPA approval following reasonable notice to and opportunity to comment by OEPA and Intervenors.

D. Quality Assurance Project Plan(s) (QAPP)

As part of the IM Workplans, AK Steel shall prepare one or more QAPPs to document all monitoring procedures, sampling, field measurements and sample analysis performed during the IM so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPP(s) shall be prepared in accordance with guidance specified in Attachment 4 to the Consent Decree. A pre-QAPP meeting may be held prior to preparation of the QAPP. If held, AK Steel shall notify and afford an opportunity to participate to its QAPP preparer, laboratory representatives, EPA Project Coordinator, EPA Quality Assurance representatives, OEPA staff, and representatives of Intervenors.

A laboratory performance audit may be conducted by EPA or OEPA on the laboratory selected by AK Steel.

E. Data Management and Reporting

As part of the IM Workplan(s), AK Steel shall develop and implement data management and reporting procedures to document and track interim measures data and results. This component of the IM Workplan(s) shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The format to be used to present the raw data and conclusions of the Interim Measures shall be provided. As a final output, all locational, soil, sediment, water and groundwater data shall be submitted in an electronic database suitable for display in a GIS format.

Part 2: Health and Safety Plan

Concurrently with submission of the IM Workplan(s), AK Steel shall submit the Health and Safety Plan to EPA, OEPA and Intervenors for review. The Health and Safety Plan is not subject to approval pursuant to the Consent Decree; however EPA may submit comments on the Health and Safety Plan.

A. Major elements of the Health and Safety component may include:

- Facility description, including availability of resources such as roads, water supplies, electricity and telephone services;
- Description of the known hazards and evaluation of the risks associated with the known hazards and with each activity conducted;
- A list of key personnel and alternates responsible for site safety, response operations, and protection of human health;
- Description of the levels of protection to be worn by personnel;
- Delineation of the work area;
- Procedures to control site access;
- Description of decontamination procedures for personnel and equipment;

- Site emergency procedures;
- Emergency medical care for injuries and toxicological problems;
- Description of requirements for an environmental surveillance program;
- Routine and special training required for response personnel; and
- Procedures for protecting workers from weather-related problems;

B. The IM Health and Safety component shall be consistent with:

- NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- EPA Order 1440.1 - Respiratory Protection;
- EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;
- Facility Contingency Plan;
- EPA Standard Operating Safety Guide (1984);
- OSHA regulations particularly in 29 CFR 1910 and 1926;
- State and local regulations; and
- Other EPA guidance as appropriate.

Unless the Parties agree that other measures of personal protection are appropriate for particular activities or areas, representatives from EPA and OEPA agree to wear safety glasses with permanently affixed side shields, hard hats, long sleeve shirts, long pants, and leather steel toed shoes with metatarsal protection when visiting the Facility in connection with implementation of any Interim Measures, except that rubber boots may be worn in lieu of leather steel toed shoes with metatarsal protection for investigatory activities in Floodplain areas, Dicks Creek and Monroe Ditch. The Defendant shall supply leather steel-toed shoes with metatarsal protection upon request by EPA and OEPA. Intervenors shall comply with safety practices of AK Steel when on the Facility, as specified in Attachment 8 to the Consent Decree.

Part 3: Interim Measures Design Program

A. Design Plans and Specifications

AK Steel shall develop and submit for approval in accordance with Section IX of the Consent Decree clear and comprehensive design plans and specifications for IMs 2, 3, 4, 5, 6, 7, 8 and 12. Such design plans and specifications shall include the following, as applicable:

1. Discussion of the design strategy and the design basis;

2. Discussion of the technical factors of importance;

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of operation and maintenance problems;

5. Detailed drawings of the proposed design;

6. Tables listing materials, equipment and specifications; and

7. Appendices including:

   - Sample calculations (one example presented and explained clearly for significant or unique design calculations);
   - Derivation of equations essential to understanding the report; and
   - Results of laboratory or field tests.

B. Operation and Maintenance Plan

AK Steel shall prepare and submit for approval in accordance with Section IX of the Consent Decree, an O&M Plan to cover both implementation and long-term maintenance of the Interim Measures. This O&M Plan shall address the requirements for IMs 3, 8, 9, 10, 11, and 12. The O&M Plan for IMs 9, 10, and 11 shall be submitted in lieu of an IM Workplan for these Interim Measures; the O&M Plan for IMs 3, 8, and 12 may be submitted either as part of the IM Workplan or as part of the Final Design Documents. Each O&M Plan shall be composed of the following elements as appropriate to the specific Interim Measure:

1. Equipment start-up and operator training

AK Steel shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up and operation of the treatment systems and training covering appropriate operational procedures once the start-up has been successfully accomplished.

2. Description of normal operation and maintenance (O&M), including:

   - Description of tasks for operation;
   - Description of tasks for maintenance;
   - Description of prescribed treatment or operation conditions;

- Schedule showing frequency of each O&M task; and
- Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing, including:

- Description of monitoring tasks;
- Description of required laboratory tests and their interpretation;
- Required QA/QC; and
- Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of equipment, including:

- Equipment identification;
- Installation of monitoring components;
- Maintenance of site equipment; and
- Replacement schedule for equipment and installed components.

5. Records and reporting mechanisms required, including:

- Daily operating logs;
- Laboratory records;
- Mechanism for reporting emergencies;
- Personnel and maintenance records; and
- Monthly, quarterly, or annual reports, as specified, to Federal/State agencies.

The O&M Plan shall be submitted with the Final Design Documents or as approved in the Interim Measures Workplan(s).

C. Project Schedule

AK Steel shall develop and submit for approval in accordance with Section IX of the Consent Decree a proposed Project Schedule for construction and/or implementation of each Interim Measure which identifies timing for initiation and completion of all major milestones. At least 7 days prior to initiation of field activities associated with each major milestone task, AK Steel shall notify EPA, OEPA, and Intervenors of the scheduled dates for initiation and completion of such task. AK Steel shall specifically identify dates for completion of the project and major interim milestones which, upon approval, are enforceable terms of the Consent Decree. A

proposed Project Schedule shall be included within the Interim Measures Workplan and an updated schedule shall be incorporated into the Final Design Documents, as appropriate.

D. Construction Quality Assurance (CQA) Objectives

As part of the Final Design Documents submitted for approval in accordance with Section IX of the Consent Decree, AK Steel shall identify and document the objectives and framework for the development of a construction quality assurance program including the following: inspection activities, sampling requirements and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the Interim Measure shall be described. AK Steel must identify a CQA officer and the necessary supporting inspection staff.

1. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the Interim Measure(s) shall be summarized. The scope and frequency of each type of inspection or test shall be specified. Inspections shall verify compliance with all environmental requirements and include air quality and emissions monitoring records, as appropriate, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection shall also ensure compliance with all health and safety procedures. In addition to oversight inspections, AK Steel shall conduct the following activities:

a. Preconstruction inspection and meeting

AK Steel may conduct a preconstruction inspection and meeting to:

- Review methods for documenting and reporting inspection data;
- Review methods for distributing and storing documents and reports;
- Review work area security and protocol;
- Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
- Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

If held, the preconstruction inspection and meeting shall be documented by a designated person and minutes shall be transmitted to all parties.

b. Final inspection

Upon project completion, AK Steel shall notify the Project Coordinators for EPA and OEPA and the Project Representative for Intervenors for the purposes of

arranging a final inspection. The final inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the EPA-approved Interim Measures. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by AK Steel. AK Steel will certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. AK Steel will develop a final inspection report within 30 days of the inspection to outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for any necessary follow-up inspection.

Upon completion of any outstanding construction items, AK Steel shall notify the Project Coordinators for EPA and OEPA and the Project Representative for Intervenors, and EPA will determine if a follow-up inspection is necessary. The final inspection report will be used as a checklist for the follow-up focusing on the outstanding items that were unresolved at the time of the last inspection.

In lieu of a single inspection upon completion of all IMs, a select number of final inspections may be conducted following completion of various major components of the IM SOW.

2. Sampling and Testing Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems shall be presented in the CQA program.

3. Documentation

Recordkeeping requirements for CQA activities shall be described in detail. This shall include such items as daily summary reports, inspection data sheets, problem identification reports, design acceptance reports, and final documentation, including as-built plans and specifications. Provisions for the final storage of all records shall be presented.

Part 4: Reports and Submittals

A. Progress

AK Steel shall develop and submit to EPA, OEPA and Intervenors signed, monthly progress reports containing:

1. A description and estimate of the percentage of the Interim Measures completed;

2. Summaries of all findings;

3. Summaries of all changes made in the Interim Measures during the reporting period;

4. Summaries of all formal contacts with representatives of the local community and public interest groups, or State government other than OEPA during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Summary of the status of any permit applications required for the IM;

8. Changes in management personnel during the reporting period; and

9. Projected work for the next reporting period.

B. Interim Measures Workplan

AK Steel shall submit for approval in accordance with Section IX of the Consent Decree the Interim Measures Workplan(s) as described in Section III, Part 1.

C. Final Design Documents

AK Steel shall submit for approval in accordance with Section IX of the Consent Decree each of the final design documents described in Section III, Part 3.A through 3.D, above.

D. Interim Measures Report

At the "completion" of each Interim Measure (except for long-term operations, maintenance and monitoring), AK Steel shall submit an Interim Measure Implementation Report to EPA, OEPA and Intervenors. Each such Report shall document that the subject Interim Measure is consistent with the design specifications, and that the Interim Measure is performing adequately. Each Interim Measure Implementation Report shall include the following elements:

1. Synopsis of the Interim Measure and certification of design and construction;

2. Explanation of any modifications to the design plan(s) and/or Interim Measures Workplan(s) and why these were necessary for the project;

3. Listing of criteria, established before the Interim Measure was initiated, for judging the functioning of the Interim Measure and also explaining any modification to these criteria;

4. Results of facility monitoring, indicating that Interim Measures will meet or exceed the performance criteria; and

5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall be based on the inspection summary reports, inspection data sheets, problem identification reports, any photographic records, any design engineers' acceptance reports,

deviations from design and material specifications (with justifying documentation) and as-built drawings, which shall be maintained by AK Steel as part of the project files. All such documents shall be made available for inspection by EPA or OEPA, upon request, and if requested AK Steel shall provide copies of any such documents. After completion of all Interim Measures, AK Steel shall submit to EPA, OEPA and Intervenors an Interim Measures Completion Report, including a compilation of the Interim Measures Implementation Reports for each of the Interim Measures. The Interim Measures Completion Report will be the Completion Report for the IM Work required under Section XVI of the Consent Decree.

Part 5: Schedule

AK Steel will provide IM submittals and complete implementation of Interim Measures according to the following schedule:

Requirement	**Due Date**
Submission of Interim Measures Workplan(s)	
- Floodplain Soil SAP (relating to IMs 1, 4b, 4c)	Already submitted and approved
- Sediment Delineation Plan (relating to IMs 6 and 7)	Already submitted and approved
- Upland Sources SAP (relating to IMs 3, 4a, 5)	Within thirty (30) days after entry of the Consent Decree, unless EPA approves a longer period, after consultation with OEPA and Intervenors
- For all remaining elements of the Workplan(s) for IMs 2, 3, 4, 5, 6, 7, 8	Within thirty (30) days after entry of the Consent Decree, unless EPA approves a longer period, after consultation with OEPA and Intervenors
- Phytoremediation Workplan (IM 12)	Within sixty (60) days of entry of Consent Decree, unless EPA approves a longer period, after consultation with OEPA and Intervenors
- For control of seeps, if required pursuant to IM 10	Within thirty (30) days after receipt of analytical results indicating that seep contains PCBs or pH above 9.0, unless EPA approves a longer period, after consultation with OEPA and Intervenors

Requirement	Due Date
Submission of Public Involvement Plan Submission of Quality Assurance Plan Submission of Data Management Plan Submission of Health and Safety Plan	Within thirty (30) days after entry of the Consent Decree, unless EPA approves a longer period, after consultation with OEPA and Intervenors
Submission of Operations and Maintenance (O&M) Plans for IMs 9, 11, and seep inspection and sampling requirements of IM 10	Within thirty (30) days after entry of the Consent Decree, unless EPA approves a longer period, after consultation with OEPA and Intervenors
Submission of Design Documents, including Design Plans and Specs, O&M Plans, Project Schedules and Construction QA Plan for: - Floodplain Soil Remediation Design Document (relating to IMs 2, 4b, 4c)[1/] - Upland Soil Remediation Design Document (relating to IMs 4a, 5) - MDA 33S Remediation Design Document (relating to IM 3) - Sediment Remediation Design Document (relating to IMs 6, 7, 8) - Control of seeps, if required pursuant to IM 10 - Phytoremediation Design Document (relating to IM 12)	In accordance with the project schedules in the approved IM Workplan(s), unless EPA approves a longer period, after consultation with OEPA and Intervenors
Implementation of each approved Final Design Document	In accordance with project schedule in the approved Final Design Document, unless EPA approves a longer period, after consultation with OEPA and Intervenors

[1/] Based on results of sampling pursuant to the Floodplain Soil SAP, floodplain remediation activities may be included in the Sediment Design Document.

Requirement	Due Date
Submission of Interim Measures Completion Report(s)	In accordance with the project schedule in the approved IM Workplans and Design Documents, as applicable, unless EPA approves a longer period, after consultation with OEPA and Intervenors
Submission of Progress Reports	Monthly, by the 15th of each Month, beginning on the first month after entry of the Consent Decree